NEW MEXICO
ENVIRONMENT DEPARTMENT

Ground Water Quality Bureau

1190 St. Francis Drive, P. O. Box 5469
Santa Fe, NM 87502-5469
Phone (505) 827-2900 Fax (505) 827-2965
www.nmenv.state.nm.us

BILL RICHARDSON
Governor
DIANE DENISH
Lieutenant Governor

RON CURRY
Secretary
JON GOLDSTEIN
Deputy Secretary

Memorandum

To: **LaDonna Turner, Site Assessment Manager**
Technical and Enforcement Branch
U.S. Environmental Protection Agency, Region 6

From: **Dana Bahar, Manager, Superfund Oversight Section**
Ground Water Quality Bureau, New Mexico Environment Department.

Date: **September 10, 2009**

Subject: **Pre-CERCLIS Screening Assessment of Schmitt Decline Mine, McKinley County, New Mexico: Further action under CERCLA recommended**

Site name	Schmitt Decline Mine				
City	not applicable	**State**	New Mexico	**Zip code**	not applicable
County	McKinley				
Latitude	35° 20’ 54.55”	**Longitude**	107° 48’ 10.98”		

Site physical description: The Schmitt Decline Mine currently has an open and unfenced decline, surrounded by waste material piles that show evidence of erosional dispersion.

Site identification: Potential alluvial ground water contamination within the Grants Mineral Belt was identified because background standards established for the contaminants of concern for ongoing remedial action associated with the Homestake Mining Company NPL site (CERCLIS NMD0007860935) are generally higher than Maximum Contaminant Levels (MCLs). NMED conducted sampling of private residential wells in subdivisions located in the vicinity of the HMC site, and found that the majority had one or more contaminant concentrations exceeding MCLs.

Site summary: Observations made during NMED’s Site reconnaissance are shown on the accompanying figures. The decline appears to be structurally stable. One pile of sandstone material had the highest site-related radioactivity at 2687 counts per second (cps; background=21 cps). Other waste piles that were examined and the decline opening itself did not have significantly higher radioactivity than background. Contamination of

vicinity soils and surface drainages by precipitative erosion and wind dispersion comprise the primary contaminant pathways that may be associated with this site. Additionally, site runoff of contaminated wastes may impact ground water quality either through seepage through alluvium or by direct entry to the subsurface via the open decline.

This site may be the same as that identified as the Gossett Decline by Anderson (1980).
Targets: Residences are located near the junction of State Hwy. 605 and 509, approximately 1.22 air-miles east-southeast of the Site. Another residence is located along Haystack Road approximately 2.65 air-miles southwest of the Site, from which another residence is visible further to the west. Other potential targets may include cattle and wildlife.

Closest well sampled to date: livestock well SMC-18 (0.1 air-miles; 2 µg/l total uranium in 2009 sampling).
Site ownership and Potentially Responsible Parties: Surface rights reportedly are held by Schmitt. Operational history of this site is not known.
File review: NMED staff reviewed the following files:

- Database compiled by Mining and Minerals Division of the New Mexico Energy, Minerals, and Natural Resources Department (07/20/2007).
- Anderson, Orin J., 1980. "Abandoned or inactive uranium mines in New Mexico".
- McLemore, Virginia T. and William L. Chenoweth, 1991. "Uranium mines and deposits in the Grants district, Cibola and McKinley Counties, New Mexico." New Mexico Bureau of Mines and Mineral Resources Open-file report 353.
- Rappaport, Linda, "Uranium deposits of the Poison Canyon ore trend, Grants District," in "Geology and technology of the Grants Uranium Region, 1963. State Bureau of Mines and Mineral Resources.
- U.S. Geological Survey, 1997. "Gallup quadrangle NURE HSSR study." OFR-97-492.

Site reconnaissance: NMED staff conducted a Site reconnaissance on June 2, 2009.
Recommendation: A release of CERCLA hazardous substances has been documented at the site. NMED recommends further investigation under CERCLA to assess the risk posed by the site using the Hazard Ranking System.

NMED recommends that the investigation include the following:

1. Sample sediments along drainages to characterize extent of Site-derived waste dispersion.
2. Investigate and characterize ground water impacts.

In addition NMED recommends the following actions be performed to address immediate threats to public health and the environment:

1. Remove waste with elevated radioactivity.
2. Close open decline.

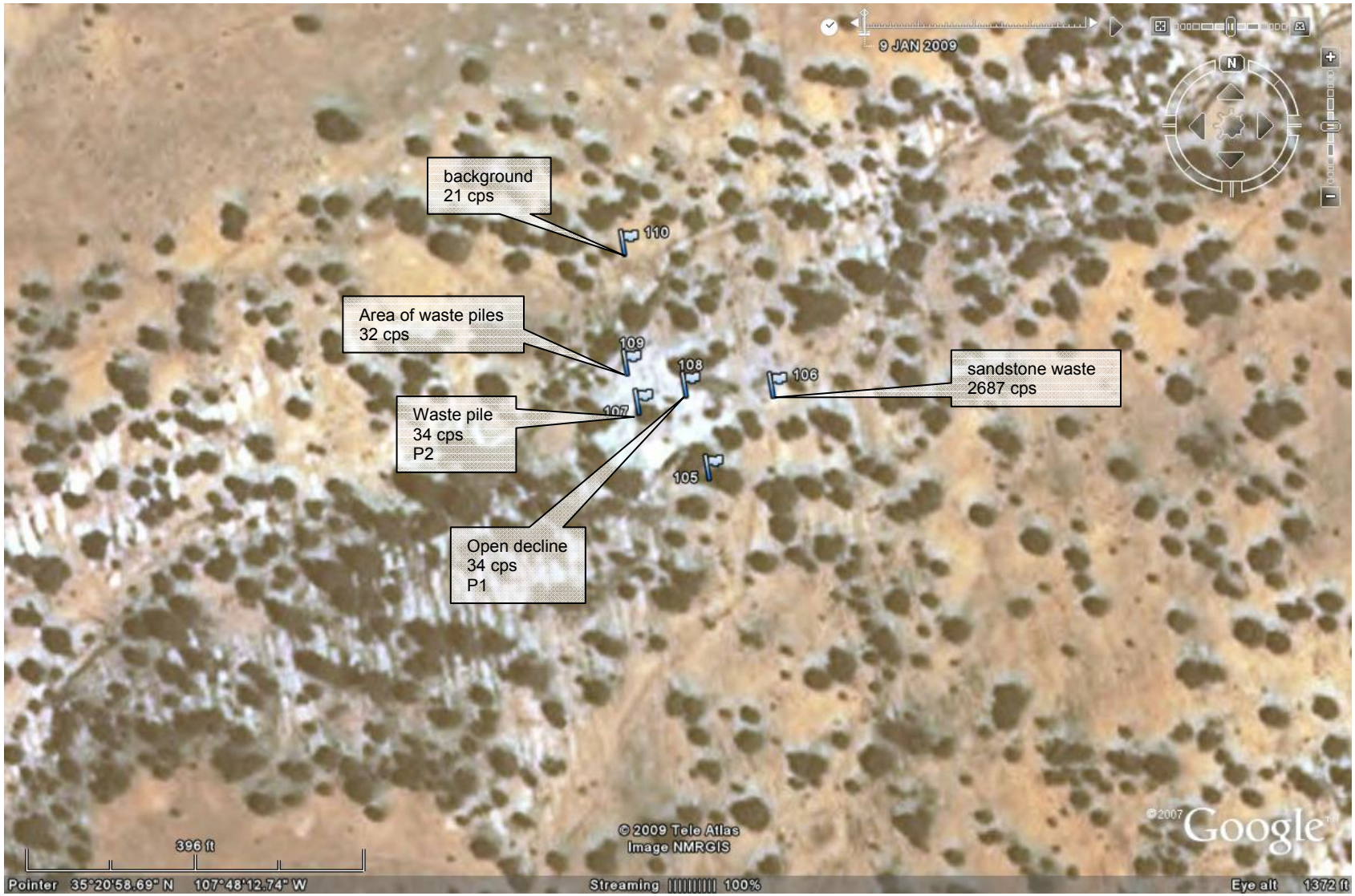

Figure 1: "Schmitt" Decline

"Px" reference the location of photographs on pages following.

P1: Schmitt Decline

P2: Schmitt Decline waste pile